

WORK SESSION

PINEVILLE HUT MEETING FACILITY MONDAY, AUGUST 22, 2022 AT 6:00 PM

AGENDA

CALL TO ORDER

DISCUSSION ITEMS

1. Vogue Tower (*Ryan Spitzer*) - discussion of cell tower requirements

ADJOURN

Lisa Snyder is inviting you to a scheduled Zoom meeting.

Topic: My Meeting

Time: Aug 22, 2022 06:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

https://us05web.zoom.us/j/85239122375?pwd=WWdaK1Nad3hMYjNmS0RjSTA5cGJKdz09

Meeting ID: 852 3912 2375

Passcode: Lgf4ZH

If you require any type of reasonable accommodation as a result of physical, sensory, or mental disability in order to participate in this meeting, please contact Lisa Snyder, Clerk of Council, at 704-889-2291 or lsnyder@pinevillenc.gov. Three days' notice is required.

Workshop Meeting



To: Town Council **From:** Travis Morgan

Date: 8/22/2022

Re: Vogue Tower/Sportsplex Conditional Plan Amendment (Informational Item)

UPDATE:

Tower location pad includes landscaping and updated to 35 feet by 75 feet. See updated location drawing and monopole tower design.

BACKGROUND:

The property at 13333 Dorman Road has previous received site-specific approval for the Carolina soccer sportsplex from May 8th 2012. Initial applicant request was for a 120 foot tower in the front yard that was not permitted by section 6.5.12 Zoning Ordinance requirements. Tower heigh was increased sixty feet due to back location being that amount lower in elevation: 630 vs 570 elevation.

PROPOSAL:

Applicant Pat Troxell-Tant of Vogue Towers seeks your consideration for a new 180-foot monopole cell tower and associated 30' x 75' fenced equipment area. Communication towers in the RMX zoning district require conditional approval and meet section 6.5.12 of the Zoning Ordinance. (See following development summary)

DEVELOPMENT SUMMARY:

Location: 13333 Dorman Road (Carolina Sportsplex rear yard area)

Request: 180 foot monopole cell tower within a 35'x75' fenced leased area including

landscaping

Zoning: Existing: RMX (CD)

Proposed: RMX (CD) (amended)

Parcel Size: 56.48 acres
Parcel 13501 Dorman Size: 1.82 acres
Parcel Size: 58.3 acres total

STAFF COMMENT:

Update: Applicant wishes to conclude the request at the next Council meeting. Any requirement or restriction such as the sidewalks council can make and vote on. Who actually does or pays for improvements can be left up for private negations between the applicant and property owner after any approved zoning plan.

Applicant submittal summary of information and response to ordinance sections is appreciated. Location is approximately 1,600 feet from Dorman Road and 1,200 to the closest residences. There in not much likelihood of homes being built any closer as the closest other properties are by Duke Power and Nature Conservancy.

Note that the adjacent former church property at 13501 Dorman (see street view photograph) has since been acquired and utilized by the Sportsplex. I would recommend that site be brought into zoning compliance with sidewalks and parking lot screening. This would be consistent with standard requirements in other conditional approvals and walkability goals of the newly adopted comprehensive and similar plans.



There appears the documented need of the Tower and could be useful for the future growth of the Town and services in the area. Staff supports location of the Tower with the addition of the sidewalk as a standard zoning compliance item. Location is as far away from adjacent residences as you could reasonably get in the area.

PROCEDURE:

This meeting is to familiarize you with the applicant's request go over updates, modifications, and recommendations. The process is legislative with the standard conditional zoning process. This is a workshop meeting intended to refine the development proposal and to get your feedback ahead of any future public hearing and council vote. For any upcoming vote; a general consistency statement is needed for consistent with or inconsistent with adopted plans. Applicant is requesting a vote after the next possible public hearing.





Submit to Planning Department, 200 Dover St, Pineville, NC 28134 Phone (704) 889-2291 Fax (704) 889-2293

Office Use Only:				Appli	ication#:	
Payment Metho	d: Cash	Check	Credit Card	Amount \$		Date Paid
		Zo	ning App	olication		
Note: A	pplication will not					red have been completed
Applicant's Name	: Vogue Tower I	artners VII, LL	C		Phone:	423-702-0313
Applicant's Mailir	ng Address: <u>430</u>) Chestnut Stre	et, Suite 101-B, Cho	ittanooga, TN, 37	402	
Property Inform	nation:					
Property Location	n: Carolina Spor	tsplex, Dormai	n Road, Pineville, NO	28134		
Property Owner's	Mailina Address:	13333 Dori	man Road, Pineville,	NC 28134		
			C (Brad Wylde)		Phono.	704-708-4166
	rcel Number: 22			Existing	Zoning:	RMX
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Parking Spaces R	equired N/A	Parking Spa	ces Provided N	/A **P	lease Attacl	h Site Specific Conditional Plan
Conditional Rezo	oning:					
Proposed Conditi	onal Rezoning Desi	gnation				
Text Amendmen	t:					
Section	San Addition (August 2 - August 2	Reason				
Proposed Text Ch	nange (Attach if ne	eded)				
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_	fy that all information of Applications of App	dell-	ave provided for the	is application is,		of my knowledge, correct. 7. 20シン
\$	Signature of Prope	ty Owner (If n	not Applicant)		Date	
5	Signature of Town	Official			Date	

Item 1.

Polaris 3G Map – Mecklenburg County, North Carolina Pineville Alt Location - SE Corner

Date Printed: 4/8/2022 3:44:38 PM



This map or report is prepared for the inventory of real property within Mecklenburg County and is compiled from recorded deeds, plats, tax maps, surveys, planimetric maps, and other public records and dat Users of this map or report are hereby notified that the aforementioned public primary information sources should be consulted for verification. Mecklenburg County and its mapping contractors assume no leg responsibility for the information contained herein.



APPLICATION FOR CONDITIONAL USE APPROVAL BY VOGUE TOWER PARTNERS VII, LLC, FOR THE CONSTRUCTION OF A WIRELESS COMMUNICATION FACILITY

Application: For Town of Pineville approval by Vogue Tower Partners VII, LLC ("Vogue Towers") for a proposed multi-carrier (provider) communications facility.

Site Name: Sugar Creek, NC-091

Project Description: Vogue Towers proposes to construct a multi-tenant 180' monopole structure within a 25'x 65' fenced compound area (see attached design drawings for details). This facility will have provisions for multiple carriers, satisfying the intent of the Town's ordinance to reduce the need for new towers.

Parcel Address: Dorman Road, Pineville, NC 28134

Property Owner: Carolina Sportsplex, LLC

Narrative:

The wireless industry is continually improving networks to best meet the needs of the community. In the present case, the growth in usage at existing locations requires a new tower. The purpose of this proposed wireless facility will be to provide improved capacity, quality, and safety to the area, specifically to customers and residents in and around this portion of Pineville.

As the demand for wireless continues to increase with the use of "smart phones" (24.3% increase in voice, 19.6% increase in data in 2020, per CTIA), there is an increased need for wireless telecommunications infrastructure to keep up with the demand. Each wireless telecommunications facility can handle only a fixed amount of demand and/or cover so far, and this tower is needed to provide additional coverage and capacity for this portion of the community.

This proposal is to construct a multi-carrier monopole communications facility. The applicant will lease the use of space and access as shown on the site plan. Within that area will be a 1,625 sq/ft fenced compound providing room for wireless carriers including Verizon Wireless (a party to this application request), AT&T, and other collocating wireless providers to place equipment cabinets/buildings within the compound of the new tower.

Consideration of this application should not, however, be limited to examining how successfully Vogue Towers has mitigated any negative impact through design and location. The positive impact of the site should be given full

weight as well. We live in a society where our wireless devices have become an essential tool for daily living, a necessity with approximately 80% of E911 calls being made from wireless devices each year and more than one-half of American homes (54.9% as of 2018) with only wireless telephone service (*National Center for Health Statistics*). Furthermore, the benefits of this site to the community go beyond just convenience for residents and businesses. Quality wireless service is part of the critical infrastructure necessary for public safety and first responders in emergency situations such as accidents, crimes, health incidents and natural disasters. Given the design, location and benefits provided by this proposed site, the lack of significant impacts, and compliance with the requirements of the ordinance as more fully demonstrated below, approval of this application is respectfully requested.

6.5.12 Communication Facilities and Towers

In recognition of the Telecommunications Act of 1996, it is the intent of the Town of Pineville to allow communication providers the opportunity to locate towers and related facilities within its jurisdiction in order to provide an adequate level of service to its customers while protecting the health, safety, and welfare of the citizens of Pineville. Wireless towers may be considered undesirable with other types of uses, most notably residential, therefore, special regulations are necessary to ensure that any adverse effects to existing and future development are mitigated.

- A) Wireless telecommunication towers, (including cellular towers, digital towers, and PCS towers), are permitted uses by right in the G-I district pursuant to the regulations set forth in this section. Telecommunication towers require the conditional zoning approval from town council in all other zoning districts pursuant to the regulations set forth in this section and Ordinance. Applicant is seeking conditional zoning approval to place the Communications Facility on a parcel zoned (RMX), Residential Mix-Use.
- B) All telecommunication towers constructed must be of the monopole variety, unless the tower exceeds 199.9 feet, in which case a lattice type tower may be used to ensure structural safety. Towers within the G-I district may be either a monopole or lattice type where the property currently has no structure or is developed for non-residential purposes. Towers constructed on property, which includes residential development, must be of the monopole variety. Applicant complies, proposing a 180' monopole.
- C) It is the intent of the Town to encourage providers to co-locate facilities in an effort to reduce the number of towers in Pineville's jurisdiction. Providers shall exhaust all potential co-location possibilities and provide documentation to such effect before the Town considers any application. As depicted in attached coverage propagation maps generated by Verizon Wireless (Exhibit 1) and mapping of nearby towers (Exhibit 2), there are no viable existing structures to utilize for collocation. In fact, Verizon Wireless is located on, and currently operating from the nearby towers, confirming the need for this additional location.

The Town encourages providers to construct telecommunication towers such that additional telecommunication providers may be afforded the opportunity to co-locate facilities on the tower. The owners of the towers with co-location space shall negotiate in good faith with other providers' space at a reasonable lease cost, and publicize the fact that space is available on a lease basis. The Town further reserves the right to make co-location a condition of any tower permitted as a conditional use under the guidelines listed above.

Applicant complies and has designed this location specifically to offer space to other providers as reflected in the attached site plan.

Mini or micro cell co-locations of the mono-pole type only on top of existing buildings or utility poles are permitted up to twenty (20) feet in height. N/A

D) The maximum height of any tower located in all Residential (R) districts, Business (B) districts, and Office (O) districts is 125 feet unless documentation is provided to show a taller tower is required to meet minimal service levels (i.e. cannot meet reasonable service coverage area). Towers located in the G-I district have a maximum

height limitation of 199.9 feet unless documentation is provided to demonstrate a taller tower is required for a minimal level of service and need. If the property on which the tower is located is developed for residential purposes, the tower will have a maximum height of 125 feet. As noted above, Applicant is seeking to develop a multi-carrier Communications Facility consisting of a 180' monopole. The current zoning of the parcel is RMX and the current use is as the Carolina Sportsplex soccer facility. Vogue Towers seeks to locate and develop their facilities within permitted uses, working diligently to avoid residentially zoned property wherever and whenever possible and selected this location based on its underlying use. The original location was based on higher ground elevation, but the reduced ground elevation at this location requires a higher tower in order for Verizon Wireless to meet the coverage objective.

- E) No telecommunication tower is allowed to be located within the front or side yards of any existing development. **Applicant complies.**
- F) The Town of Pineville, by federal law, cannot prohibit a telecommunication tower nor deny a conditional zoning approval on the basis of environmental or health concerns relating to radio emissions if the tower complies with the Federal Radio Frequency Emission Standards. The Town requires that the provider must provide documentation proving that the proposed tower does comply with the Federal Radio Frequency Emission Standards. Applicant complies and provides attached letter as evidence (Exhibit 3).
- G) A minimum lot size as listed in the underlying zoning district is required, provided all setbacks required herein are met. Applicant does not own the subject parcel, occupying the proposed development location via leasehold interest. However, Applicant does comply with setbacks for the RMX zoning district as well as complies with the minimum 150' tower setback to property lines as demonstrated in the attached site plan.
- H) Wherever feasible, all accessory structures on the ground which contain switching equipment or other related equipment must be designed to closely resemble the neighborhood's basic architecture, or the architecture and style of the principal use on the property. Every effort should be made to conceal a tower within Residential (R) Districts. As illustrated in the attached site plan, Verizon's equipment consists of cabinets and will be visually contained within the fenced and landscaped area.
- Screening is required along all sides of the perimeter of the tower site in accordance with the provisions set forth in Article 5 of this Ordinance. It will be the responsibility of the provider and/or the property owner to keep all landscaping material free from disease and properly maintained in order to fulfill the purpose for which it was established. The owners of the property, and any tenant on the property where screening is required, shall be jointly and severally responsible for the maintenance of all screen materials. Applicant provides evidence of its compliance in the attached site plan, proposing to landscape only three (3) sides of the Communications Facility as the rear, or eastern line, backs up to a wooded area.

Such maintenance shall include all actions necessary to keep the screened area free of litter and debris, to keep plantings healthy, and to keep planting areas neat in appearance. Any vegetation that constitutes part of the screening shall be replaced in the event it dies. In addition, an eight (8) foot high fence must be placed around the structure (before the screening) to avoid creating a nuisance. As depicted in the attached site plan and previous design drawing detail, Applicant complies with the 8' fence and will comply with the ongoing maintenance of the Communications Facility and applicable landscape buffer.

J) In all districts, a minimum setback requirement, on all sides of the property, shall be 150 feet or two feet for every one (1) foot of actual tower height (i.e. a 150 foot tower would require a 300 foot setback), whichever is greater. If the applicant can document a reduced collapse area, then the setback shall be the greater of that distance or 150 feet. Applicant complies with the minimum 150' tower setback for the area by providing an

engineered tower fall zone letter (Exhibit 4) documenting the 180' monopole will be designed with a 50% theoretical fall zone, reducing the area around the communications facility.

- K) Telecommunication towers located in all residential districts and having a height of 199.9 feet or less, shall not contain lights or light fixtures at a height exceeding fifteen (15) feet. Furthermore, lighting of all towers in any district shall be directed toward the tower and/or equipment shelters to reduce the effect of glare. Lighting is not typically required for towers below 200'. Applicant previously obtained approval by the FAA (FAA #2021-ASO-47185-OE) for the original proposed location, the coordinates of which will be revised pending this approval (Exhibit 5).
- L) Towers and related facilities must be removed by the provider and/or the property owner if abandoned (no longer used for its original intent) for a period greater than six (6) consecutive months. **Applicant will comply.**
- M) Additional provider antennas and equipment shelters to an approved telecommunication tower site may be made with the approval of the Planning Director, without additional review by the Planning Board and Town Council, provided said changes do not increase the height of the tower or the type of tower construction. Note, Applicant is seeking approval of the Communications Facility including the initial provider, Verizon Wireless, as shown in the attached design drawings.
- N) Free-standing signs for telecommunication towers are prohibited. One wall sign, for the purpose of identification, is allowed on any equipment shelter provided it does not exceed ten (10) percent of the total wall area of the wall on which it is located. Applicant will comply, providing only site identification signage on gate, emergency contact information and signage as required by regulatory authorities such as FAA or FCC.
- O) The provider must show proof of adequate insurance coverage for any potential damage caused by or to the telecommunication tower prior to the issuance of a conditional use permit. Applicant's certificate of insurance is attached (Exhibit 6).
- P) Outdoor storage of equipment or other related items is prohibited on a telecommunication tower site. **Other** than during construction, Applicant will comply.
- Q) Provider must notify the Town of sale or lease of structure. Applicant's will comply, but requests confirmation that purpose of this section is to receive notice of every Communications Facility or Tower tenant (provider)?
- R) All applications for a conditional approval for a telecommunication tower must include the following information:
 - 1) Identification of intended provider(s); Included in this conditional zoning application, Verizon Wireless, but as previously noted, site will be developed to provide space to additional providers, minimizing the need for additional towers in this area.
 - 2) Documentation by a registered engineer that the tower and foundation have sufficient structural integrity to accommodate more than one user; Applicant has not yet purchased the tower, pending this conditional use approval and required regulatory due diligence. However, the Communications Facility will be designed as a multi-carrier (provider) tower site as depicted in the attached site plan and previous design drawing detail. Applicant confirms the Tower will be designed by and the design sealed by a Professional Engineer, licensed in the State of North Carolina; will be designed in compliance with current ANSI/TIA-222 standards and local building codes to fully comply with the

Town's ordinance and building criteria; and location specific design information will be provided to the Town prior to or included with the submittal for building permit.

- 3) A statement from the owner indicating intent to allow shared use of the tower and how others will be accommodated; See attached letter from Pat Troxell-Tant, CEO of Vogue Tower Partners VII, LLC (Exhibit 7).
- 4) Evidence that the property owners of residentially zoned property within 300 feet of the site have been notified by the applicant of the proposed tower height and design; Per previous correspondence with Staff on 8/4/2021, Staff indicated they would support this task. In addition, per the attached map (Exhibit 8), there are no additional properties within the 300' radius other than the Catawba Lands Conservancy, to the East.
- 5) Documentation that the telecommunication tower complies with the Federal Radio Frequency Emission Standards; Applicant complies and provides attached letter as evidence (Exhibit 3).
- 6) Documentation that towers over 125 feet (or 199.9 feet in the G-I district) are necessary for a minimal level of service; Per §C and §D above, and Exhibits 1 and 2, the reduction of ground elevation of approx. 46' requires exceeding the tower height limit in order to justify and meet the coverage objective for this site.
- 7) Screening must be shown on the site plan detailing the type, number of plantings, and location; and See proposed landscaping included in the attached original design drawings.
- 9) Documentation of collapse zones. See attached fall zone letter (Exhibit 4) and condensed fall radius of 90' in the attached design drawings.

As provided for in this application package, the proposed telecommunications facility meets the conditions and specifications of the Town's Zoning Ordinance, Section 6.5.12, *Communications Facilities and Towers*. Wireless service is increasingly being considered a public necessity as it is often the only means citizens have to emergency services. The location and character of the use, if developed according to the plan submitted and recommended, will be in harmony with the area in which it is to be located. The proposed wireless telecommunications facility will meet the infrastructure needs of this area of the area and will provide much needed access to emergency services.

Respectfully submitted,

Patricia Troxell-Tant Chief Executive Officer

Vogue Tower Partners VII, LLC

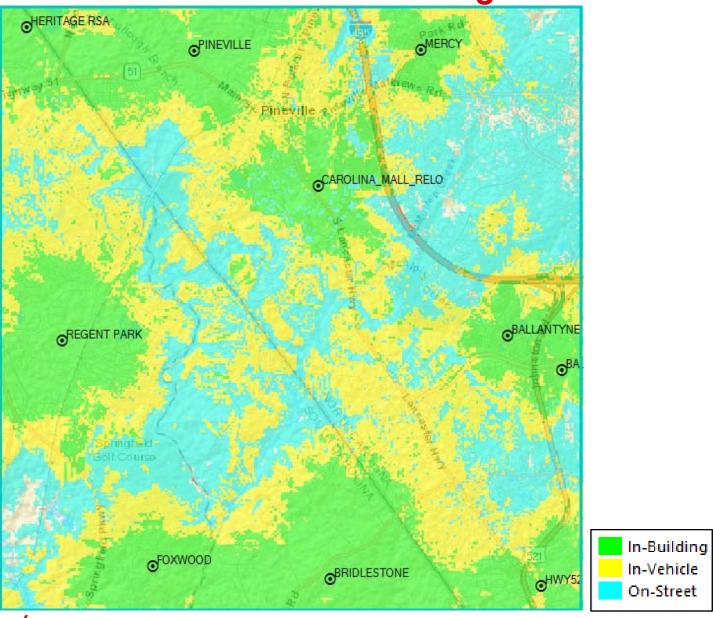
Patricia Troxell-Tant

POLK – Zoning Plots

August 2021 RF Team

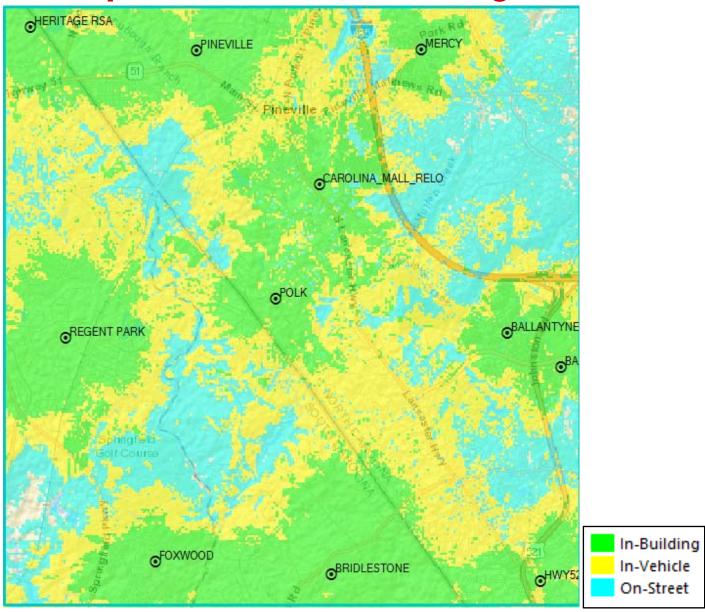


Current VZW 4G LTE Coverage





Proposed VZW 4G LTE Coverage

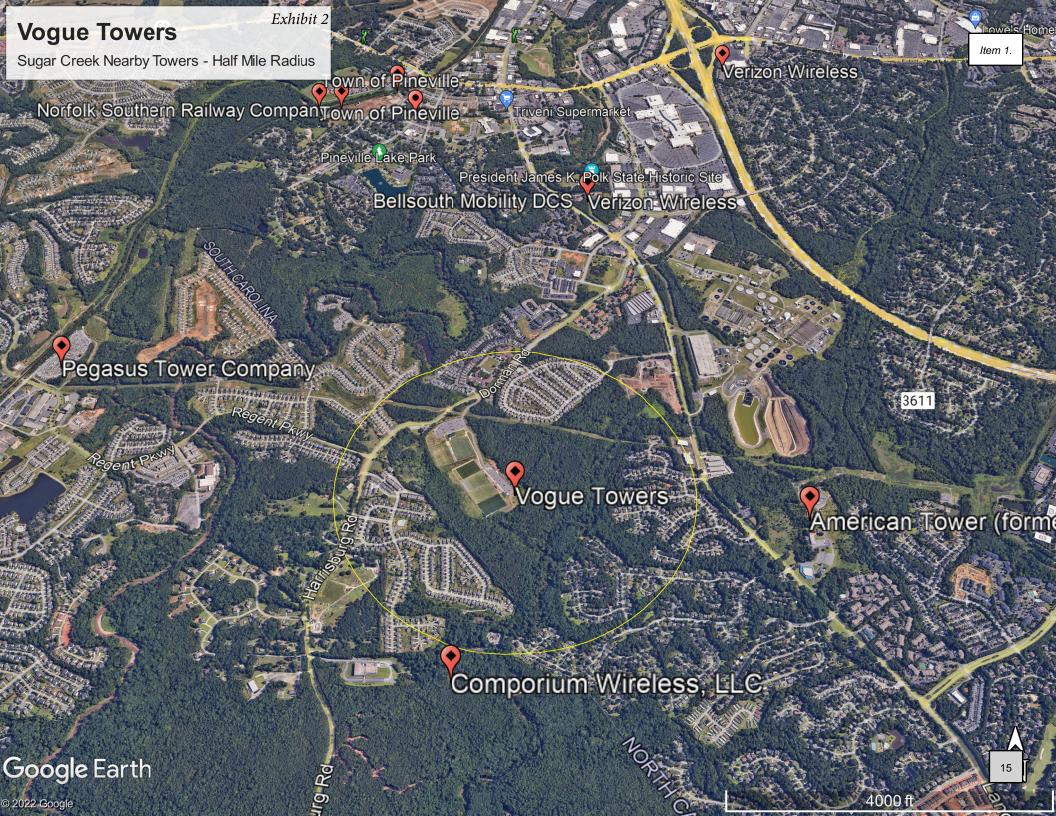




Confidential and proprietary materials for authorized Verizon personnel and outside agencies only. Use, disclosure or distribution of this material is not permitted to any unauthorized persons or third parties except by written agreement.

Thank You

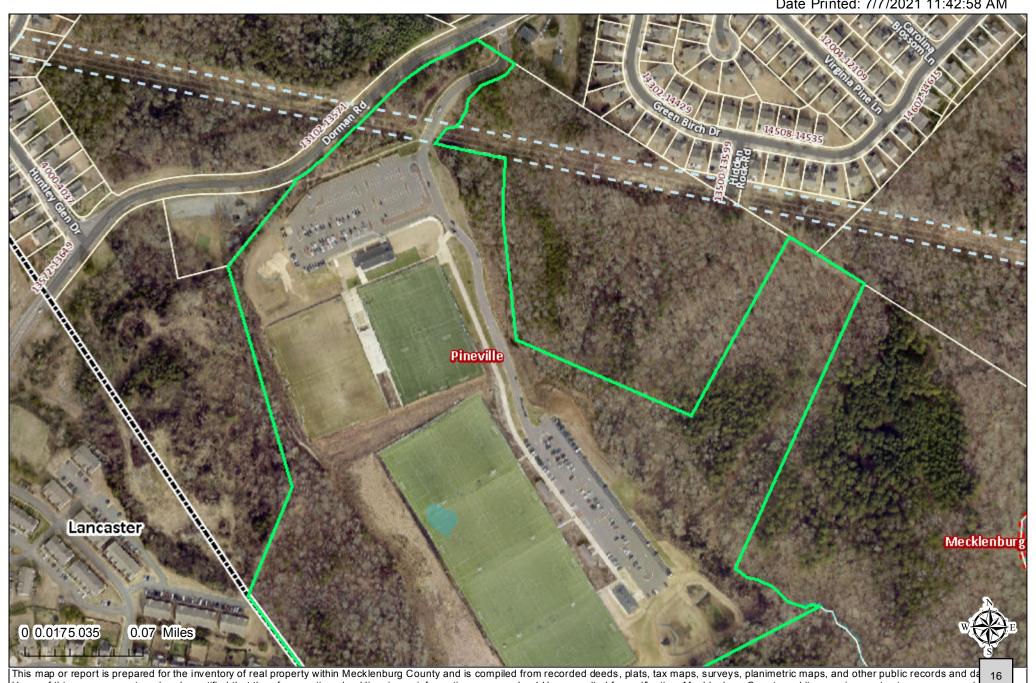




Item 1.

Polaris 3G Map – Mecklenburg County, North Carolina Sugar Creek Tax Map 7-07-2021

Date Printed: 7/7/2021 11:42:58 AM



Users of this map or report are hereby notified that the aforementioned public primary information sources should be consulted for verification. Mecklenburg County and its mapping contractors assume no least of the consulted for verification. responsibility for the information contained herein.



November 19, 2021

To: Town of Pineville

Transmitted via email to janet@voguetowers.net

RE: Verizon Wireless Polk Macro Site Located at: 13333 Dorman Rd, Pineville, NC 28134

To Whom It May Concern,

We write to inform you that Verizon Wireless has performed a radio frequency (RF) compliance pre-construction evaluation for the above-noted proposed site and based on the result of the evaluation, the site will be compliant with FCC Guidelines.

The FCC has established safety rules relating to potential RF exposure from cell sites. The rules are codified at 47 C.F.R § 1.1310. The FCC provides guidance on how to ensure compliance with its rules in the FCC Office of Engineering and Technology Bulletin 65 (available at

https://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf). The FCC developed the RF standards, known as Maximum Permissible Exposure (MPE) limits, in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. The FCC provides information about the safety of radio frequency (RF) emissions from cell towers on its website at:

https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety.

Please refer to the FCC Office of Engineering and Technology Bulletin 65 and the attached Verizon Wireless RF Brochure for information on RF exposure guidelines, RF safety, and landlord responsibilities. Questions related to compliance with federal regulations should be directed to VZWRFCompliance@VerizonWireless.com.

Please contact your local Verizon Wireless resource below if you have additional site-specific questions.

Contact Name	Contact Email	Contact Phone
Kelly Quate	Kelly.quate@verizonwireless.com	704-574-5273

Sincerely,

Jignesh Choski

Manager-RF System Design Verizon Wireless

Regional Offices

Item 1.

Corporate - Wall, New Jersey King of Prussia, Pennsylvania Bethlehem, Pennsylvania Hackettstown, New Jersey Camden, New Jersey Newark, New Jersey New York, New York

May 17, 2022

VOGUE TOWER PARTNERS VII, LLC

430 Chestnut St., Suite 101B Chattanooga, TN 37402

Re Fall Zone Letter for Proposed 180' Monopole Tower

Site Name: Sugar Creek

Site Address: Dorman Road, Pineville, NC 28134, Mecklenburg County

Building Code: IBC 2018

Design Standard: ANSI/TIA-222-H

Dear Vogue Tower Partners VII;

French & Parrello Associates has reviewed the proposed Vogue Tower communications tower installation at the above referenced site. The project will contain a monopole-type antenna support tower with a height of 180' above ground level (AGL). The monopole structure is made up of hot dipped galvanized high strength steel tubing that is typically 48-60" diameter at its base and tapering to 18" diameter at the top.

The antenna cables will be routed from the ground-based equipment up the inside of the pole to the proposed antenna rad center. The tower manufacturer shall supply structural design drawings prepared by a licensed Structural Engineer in the State of North Carolina at the time of Building Permit submission for review by the County before construction can commence.

The tower will be designed in accordance with the North Carolina State Building Code and International Building Code (IBC). Both of these codes have adopted the Telecommunications Industry Association/Electronics Industry Association Standards (ANSI/TIA-222-H). These standards dictate the design of all communications towers and take into consideration the following parameters:

1. Structure Risk Category/Class

Category/Class is chosen based upon the function of risk to human life, potential damage to property in the event of failure and the type of services that the tower will provide (i.e. essential communications vs. services that are optional)

2. Environmental Loading

Includes wind, ice, and seismic loads based upon local county-based data



3. Site Exposure Category

Category is chosen based upon "surface roughness" of local surrounding vegetation, structures and natural topography. This also impacts wind loading calculations

4. Topographic Category

Category is chosen based upon wind "speed-up" effects from surrounding topography, such as towers being located within gently rolling terrain or at the top of a hill or ridge

The design of the tower shall be such that in the unlikely event of structural failure, the monopole will collapse onto itself and not onto a street or a building. In other words, structural failure would be typical of that of a straw bending onto itself, rather than a bowling pin being knocked over. Vogue Partners shall stipulate to the tower manufacturer/designer that the area of probable failure be located in the mid-height of the tower so that the tower would collapse onto itself. This is done by over-designing the tower sections below the failure point as necessary.

In regard to the possibility of any future corrosion of the structure, the monopole shall be constructed with hot dipped galvanized steel, similar to that of highway signs and traffic signal poles. The ANSI/TIA-222-H standards have been based in part on the American Association of State Highway and Transportation Officials (AASHTO) standards which govern the construction and design standards for those structures (which have an extremely rare rate of corrosion related failures). Furthermore, the tower owner will be required to inspect the structure at intervals stipulated by ANSI/TIA-222-H standards or as may be stipulated by the underlying municipal authority, whichever is more stringent.

A geotechnical evaluation will be conducted that will explore the subsurface conditions in the vicinity of the proposed tower and develop geotechnical engineering recommendations to facilitate the design of the tower foundation. A report will be generated that shall be utilized by the tower manufacturer/designer to prepare foundation design drawings to be submitted at the time of Building Permit submission for review by the County before construction can commence. The geotechnical report and design drawings shall all be prepared by licensed Geotechnical Engineers in the State of North Carolina.

In summary, monopole-type antenna support structures are designed for extreme wind conditions with factors of safety that result in a design that is extremely conservative. The occurrence of monopole failure is exceptionally rare and historically these structures have survived after experiencing wind speeds considerably higher than their design speeds.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

John Bosco, P.E.
Senior Project Manager
NC PE # 45436 (Exp: 12/31/2022)



Aeronautical Study No. 2021-ASO-47185-OE

Item 1.

Exhibit 5

Issued Date: 01/27/2022

Janet Gill Vogue Towers Partners VII LLC (JG) 430 Chestnut Street Suite 101-B Chattanooga, TN 37402

** DETERMINATION OF NO HAZARD TO AIR NAVIGATION **

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Antenna Tower NC-091

Location: Pineville, NC

Latitude: 35-03-45.72N NAD 83

Longitude: 80-53-17.76W

Heights: 620 feet site elevation (SE)

130 feet above ground level (AGL) 750 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part 1)
X_	Within 5 days after the construction reaches its greatest height (7460-2, Part 2

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 07/27/2023 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

Page 1 of 7

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST

BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION

OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO

SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE
ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (718) 553-2611, or angelique.eersteling@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2021-ASO-47185-OE.

Signature Control No: 502458798-509694108

(DNE)

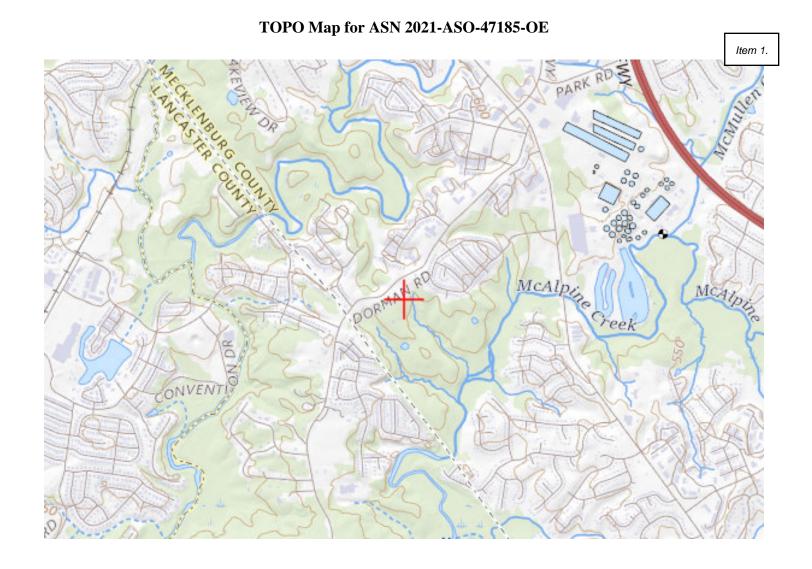
Angelique Eersteling Technician

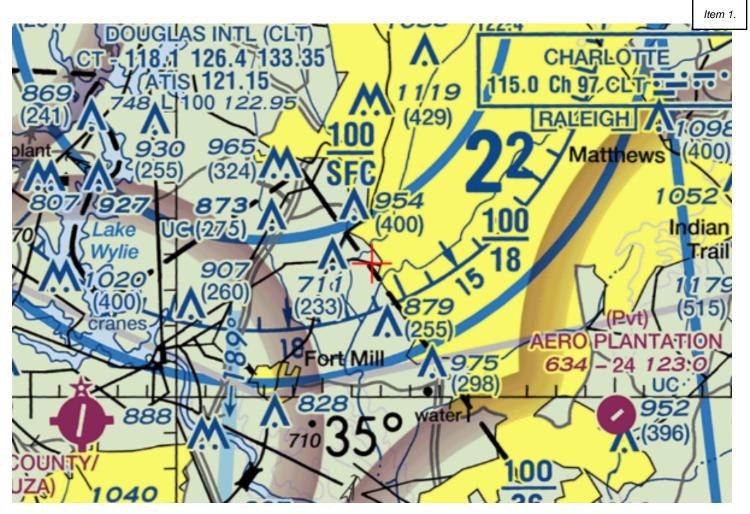
Attachment(s)
Case Description
Frequency Data
Map(s)

cc: FCC

LOW	HIGH	FREQUENCY		ERP
FREQUENCY	FREQUENCY	UNIT	ERP	UNIT
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	1000	W
614	698	MHz	2000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W







140VOGUETOW Client#: 1869017 Exhibit 6

CERTIFICATE OF LIABILITY INSURANCE ACORD...

DATE (MM	
11/24/	Item 1

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on

this cert	ificate does not confer any rights to the certificate holder in lieu	of such endorsement(s).				
PRODUCER		CONTACT Kristen Harris-Powell		•		
McGriff Insurance Services 5850 Waterloo Road, Suite 240 Columbia, MD 21045 410 480-4400		PHONE (A/C, No, Ext): 410 480-4429	FAX (A/C, No): 866-5	48-4197		
		E-MAIL ADDRESS: Kristen.Harris-Powell@McGriff.com				
		INSURER(S) AFFORDING COVERAG	iE	NAIC #		
		INSURER A: Hanover Insurance Company	22292			
INSURED		INSURER B:				
Columbia, MD 21045 410 480-4400	INSURER C:					
	·	INSURER D:				
•	•	INSURER E:				
	Vogue Tower Partners VII, LLC	INSURER F:				

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR		TYPE OF INSURANCE		L SUBR		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	S
Α	X	COMMERCIAL GENERAL LIABILITY			RHQD07666105	10/21/2021	10/21/2022	EACH OCCURRENCE	\$1,000,000
		CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$1,000,000
								MED EXP (Any one person)	\$10,000
								PERSONAL & ADV INJURY	\$1,000,000
	GEN	I'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	\$2,000,000
		POLICY PRO- JECT X LOC						PRODUCTS - COMP/OP AGG	\$2,000,000
		OTHER:							\$
Α	AUT	OMOBILE LIABILITY			RHQD07666105	10/21/2021	10/21/2022	COMBINED SINGLE LIMIT (Ea accident)	\$1,000,000
		ANY AUTO						BODILY INJURY (Per person)	\$
		OWNED SCHEDULED AUTOS ONLY)					BODILY INJURY (Per accident)	\$
	X	HIRED AUTOS ONLY X NON-OWNE AUTOS ONL) Y					PROPERTY DAMAGE (Per accident)	\$
									\$
Α	Χ	UMBRELLA LIAB X OCCUR			UHQD07666205	10/21/2021	10/21/2022	EACH OCCURRENCE	\$2,000,000
		EXCESS LIAB CLAIMS-	MADE					AGGREGATE	\$2,000,000
		DED X RETENTION \$0							\$
		RKERS COMPENSATION EMPLOYERS' LIABILITY						PER OTH- STATUTE ER	
	ANY	PROPRIETOR/PARTNER/EXECUTIVE CER/MEMBER EXCLUDED?	Y/N N//					E.L. EACH ACCIDENT	\$
	(Mar	ndatory in NH)	N/,	`				E.L. DISEASE - EA EMPLOYEE	\$
		s, describe under CRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	\$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

INFORMATIONAL PURPOSES ONLY

CERTIFICATE HOLDER	CANCELLATION
INSURED COPY	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE
	Barid J. Soul

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430 Chestnut Street – Suite 101-B Chattanooga, TN 37402

423-269-7455

Voguetowers.net

APPLICATION FOR CONDITIONAL USE APPROVAL BY VOGUE TOWERS, LLC, FOR THE CONSTRUCTION OF A WIRELESS TELECOMMUNICATIONS FACILITY AND RELATED APPURTENANCES

November 18, 2021

Mr. Travis Morgan AICP Planning Director Town of Pineville PO Box 249 Pineville, NC 28134

RE: Proposed Communications Facility, 6.5.12.R.3, Collocation Letter of Intent Vogue Tower Site – Sugar Creek Vogue Tower Site # - NC-091
Property Owner – Carolina Sportsplex, LLC

Dear Mr. Morgan:

By submittal of this letter, Vogue Tower Partners VII, LLC, (Vogue Towers) herby confirms its intent to comply with Section 6.5.12.R.3, A statement from the owner indicating intent to allow shared use of the tower and how others will be accommodated, and fully intends on making space on the tower and ground available to additional providers. As a nationally recognized Communications Facility & tower development team, Vogue Towers works with all carriers/providers in the utilization of shared facilities within the boundaries of safe engineering design.

Respectfully submitted,

Pat Troxell-Tant

Pat Troxell-Tant

Chief Executive Officer

Vogue Towers, LLC

Item 1.

Exhibit 8



This map or report is prepared for the inventory of real property within Mecklenburg County and is compiled from recorded deeds, plats, tax maps, surveys, planimetric maps, and other public records and dausers of this map or report are hereby notified that the aforementioned public primary information sources should be consulted for verification. Mecklenburg County and its mapping contractors assume no learn the information contained herein.

LOCATION MAP



DIRECTIONS

FROM CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT

GET ON I-485 OUTER FROM OLD DOWD ROAD AND US-29 SOUTH/US-74/WILKINSON BLVD. FOLLOW I-485 OUTER TO PINEVILE ROAD. TAKE EXIT 65B FROM I-485 OUTER. TAKE NORTH POLK STREET AND DORMAN ROAD. THE DESTINATION WILL BE ON THE LEFT.

CODE BLOCK

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

- INTERNATIONAL BUILDING CODE, 2018 EDITION
- INTERNATIONAL PLUMBING CODE, 2018 EDITION
- INTERNATIONAL MECHANICAL CODE, 2018 EDITION
- INTERNATIONAL FIRE CODE, 2018 EDITION
- NATIONAL ELECTRIC CODE, 2017 EDITION
- INTERNATIONAL ENERGY CONSERVATION CODE, 2018 EDITION
- ICC ANSI 117.1 ACCESSIBILITY CODE, 2010 EDITION

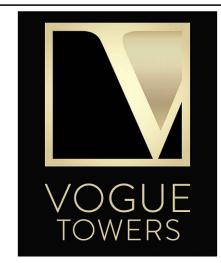
ACCESSIBILITY REQUIREMENTS:

FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE 2018 IBC BUILDING CODE



CALL NORTH CAROLINA ONE CALL (800) 632-4949 **CALL 3 WORKING DAYS** BEFORE YOU DIG!





SITE NAME:

SUGAR CREEK

SITE NUMBER:

NC-091 SITE ADDRESS:

DORMAN ROAD PINEVILLE, NC 28134

PROJECT SUMMARY

PROJECT CONSULTANTS

THE PROPOSED PROJECT SCOPE WILL CONSIST OF CONSTRUCTING A NEW

SITE NAME SUGAR CREEK SITE NUMBER NC-091

SITE ADDRESS: DORMAN ROAD PINEVILLE, NC 28134 28134

LATITUDE: 35° 03' 34.8"N SITE COORDINATES: LONGITUDE: 80° 53' 09.4"W COUNTY MECKLENBURG COUNTY JURISDICTION: PINEVII I E TOWNSHIP **ZONING** RESIDENTIAL MIX-USE (RMX)

PROPERTY OWNER: CAROLINA SPORTSPLEX, LLC

TOWER TYPE: MONOPOLE HEIGHT: 180' FT ACREAGE: GROUND ELEVATION: TBD FEET AMSL

APPLICANT:

VOGUE TOWER PARTNERS VII, LLC 430 CHESTNUT STREET SUITE 101-B CHATTANOOGA, TN 37402

ALPHARETTA, GA 30022 PHONE: 470.318.6119 EMAIL: EMAD.BADIEE@FPAENGINEERS.COM FPA JOB NO: 15228.035

100 NORTH POINT CENTER E

CLIENT CONTACT:

430 CHESTNUT STREET, SUITE 101-B CHATTANOOGA, TN 37402

CONSTRUCTION MANAGER:

POWER: DUKE POWER COMPANY (800)-777-9898

(844)-723-0252

verizon^v

CELLCO PARTNERSHIP D/B/A **VERIZON WIRELESS**

SHEET INDEX

DESCRIPTION COVER SHEET SITE SURVEY SHEETS

GENERAL NOTES

C-2

C-2.1

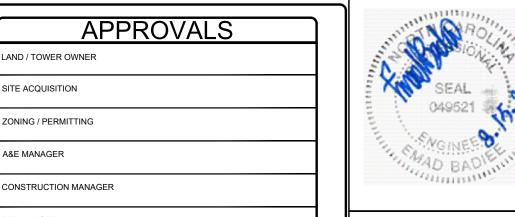
(HEREINAFTER REFERRED TO AS "LESSEE")



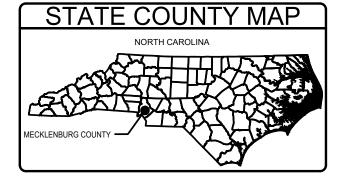
430 CHESTNUT STREET SUITE 101-B CHATTANOOGA, TN 37402



OVERALL SITE LAYOUT				
COMPOUND LAYOUT				
ENLARGED COMPOUND LAYOUT				
TOWER ELEVATION, ANTENNA LAYOUT, AND SCHEDULE				
ANTENNA AND RRU DETAILS	REV	DATE	RECORD OF ISSUE	BY
FENCE DETAILS	Α	10/08/2021	ZONING	KC EB
SITE DETAILS	В	05/03/2022	SITE SKETCH	KC EB
	С	08/15/2022	ZONING	YH EB



CONTRACTOR SHALL ATTAIN AND VERIFY STRUCTURAL EVALUATION REPORT OF EXISTING TOWER FOR EXACT PLACEMENT OF ANTENNAS AND COAX CABLES. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE STRUCTURAL EVALUATION REPORT AND NOTIFY VERIZON'S CONSTRUCTION MANAGER IN THE CASE OF ANY DISCREPANCIES. ANY STRUCTURAL MODIFICATION, IF REQUIRED, SHALL BE DONE PRIOR TO THE INSTALLATION OF ANTENNAS



SUGAR CREEK

SITE NUMBER:

NC-091

SITE NAME:

SITE ADDRESS:

DORMAN ROAD PINEVILLE, NC 28134

> **COVER** SHEET

DRAWN BY:

CHECKED BY:

PROJECT MANAGER:

SHEET NUMBER:



KC

ΕB

PINEVILLE TOWNSHIP GENERAL NOTES

- I. THESE CONSTRUCTION/SITE PLANS ARE PROVIDED TO THE PINEVILLE TOWNSHIP'S PUBLIC WORKS DEPARTMENT FOR ROADWAY/PARKING LOT/DRIVE AISLES, GRADING AND DRAINAGE PLAN REVIEW AND APPROVAL. UTILITIES SHOWN WITHIN ARE PROVIDED FOR INFORMATION ONLY. CONTACT THE APPROPRIATE UTILITY AGENCY FOR UTILITY PLAN APPROVAL.
- EROSION CONTROL PLANS AND DETAILS ARE PROVIDED FOR INFORMATION ONLY. PRIOR TO ANY GRADING ACTIVITIES A LAND
 DISTURBANCE PERMIT MUST BE OBTAINED. CONTACT CHIP HILL, PUBLIC WORKS DIRECTOR, AT (704) 651-3339
 - (CHILL@PINEVILLENC.GOV) IN THE PUBLIC WORKS DEPARTMENT TO OBTAIN A PERMIT APPLICATION.
- 3. ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE PINEVILLE TOWNSHIPS SUBDIVISION REGULATIONS.
- 4. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO ADVISE FUTURE BUILDERS AND/OR LOT OWNER'S THAT ALL DRIVEWAYS, SIDEWALKS, AND ACCESSIBLE RAMPS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH ALL FEDERAL REGULATIONS, TDOT SPECIFICATIONS. AND PINEVILLE TOWNSHIP'S SUBDIVISION REGULATIONS AND ZONING ORDINANCES.
- 5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PINEVILLE TOWNSHIP, DEPARTMENT OF PUBLIC WORKS, A MINIMUM OF 48 HOURS IN ADVANCE OF ANY REQUIRED INSPECTIONS. INSPECTIONS ARE REQUIRED BEFORE STORM WATER PIPES ARE BACKFILLED OR ANY CONCRETE IS POURED, INCLUDING INSPECTION OF SIDEWALK FORMS. CALL THE PINEVILLE TOWNSHIP, DEPARTMENT OF PUBLIC WORKS AT (704) 651-3339 TO ARRANGE INSPECTION TIMES.
- PRIOR TO THE ISSUANCE OF A FINAL USE AND OCCUPANCY PERMIT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL MAINTENANCE, RESHAPING AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS.
- 7. DEVELOPER IS RESPONSIBLE FOR PROVIDING STREET LIGHTING:
 - a. STREET LIGHTS ARE TO BE INSTALLED PER NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, AND LOCAL ELECTRIC

GENERAL NOTES

- THE GENERAL CONTRACTOR MUST VERIFY ALL DIMENSIONS, CONDITIONS AND ELEVATIONS BEFORE STARTING WORK. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICES.
- IT IS THE INTENTION OF THESE DRAWINGS TO SHOW THE COMPLETED INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, TIES, FORM WORK, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL ORDINANCES, TO SAFELY EXECUTE ALL WORK AND SHALL BE RESPONSIBLE FOR SAME. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES.
- 3. THE CONTRACTOR SHALL USE ADEQUATE NUMBER OF SKILLED WORKMAN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHOD NEEDED FOR PROPER PERFORMANCE OF THIS SCOPE OF WORK.
- 4. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO INDEMNIFY AND HOLD DESIGN ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.
- 5. GROUNDING SYSTEM MODIFICATION SHALL COMPLY WITH CARRIER'S GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH TOWER OWNER'S GROUNDING REQUIREMENTS, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN. GROUNDING SHALL BE INSTALLED AND READY FOR CONNECTIONS PRIOR TO NEW EQUIPMENT BEING INSTALLED ON SITE.
- 6. ALL WORK SHALL COMPLY WITH OSHA AND STATE SAFETY REQUIREMENTS. PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE LOCATED AS REQUIRED PRIOR TO EXCAVATION.
- 7. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL CODES OR ORDINANCES. THE MOST STRINGENT CODE WILL APPLY IN THE CASE OF DISCREPANCIES OR DIFFERENCES IN THE CODE REQUIREMENTS.
- 8. ANY DAMAGE TO THE ADJACENT PROPERTIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE LANDOWNER, ENGINEER, CONSTRUCTION MANAGER, OR OWNER.
- THE CONTRACTOR SHALL CONTACT UTILITIES AND LOCATOR SERVICE A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION. (CALL BEFORE YOU DIG 811).
- 10. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES WITHIN CONSTRUCTION LIMITS PRIOR TO CONSTRUCTION.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE ON THE SITE AT ALL TIMES. SILT AND EROSION CONTROL SHALL BE MAINTAINED ON THE DOWNSTREAM SIDE OF THE SITE AT ALL TIMES.
- 12. CONTRACTOR SHALL MAINTAIN 20' HORIZONTAL CLEARANCE FROM CENTERLINE OF EXISTING POWER LINES OR AS REQUESTED BY THE POWER COMPANY.

UTILITY DISTRICT SPECIFICATIONS.

b. STREET LIGHT FIXTURES AND POLE TYPES SHALL BE APPROVED BY THE PINEVILLE TOWNSHIP.

8. SIDEWALK NOTES:

- a. FOR ALL PUBLIC SIDEWALKS, THE STREET SIDE OF THE SIDEWALK SHALL BE 1" ABOVE THE CURB AND SHALL MAINTAIN A MAXIMUM CROSS SLOPE OF 2 PERCENT. IF SIDEWALKS CANNOT BE CONSTRUCTED WITHIN THESE PARAMETERS, CONTACT THE PUBLIC WORKS DEPARTMENT
- WHERE DRIVEWAYS AND/OR PEDESTRIAN WAYS MEET THE SIDEWALK, THE SIDEWALK SHALL REMAIN CONTINUOUS AND CONSISTENT WITH BROOM FINISHED CONCRETE.
- c. EXPANSION JOINTS SHALL BE INSTALLED ON THE FOUR SIDES OF THE SIDEWALK WHERE IT PASSES THROUGH DRIVEWAYS AND/OR PEDESTRIAN WAYS.
- d. SIDEWALKS AND CURB RAMPS SHALL BE ADA COMPLIANT.
- 9. ALL TRAFFIC CONTROL SIGNS ARE TO BE HIGH INTENSITY GRADE.
- 10. FOR ALL RETAINING WALLS WITH A HEIGHT OF 3 FOOT ABOVE GRADE OR MORE, SUBMIT A DESIGN STAMPED BY A LICENSED NORTH CAROLINA

ENGINEER TO THE PINEVILLE TOWNSHIP PUBLIC WORKS DEPARTMENT, IF NOT ALREADY INCLUDED IN THIS PLAN SET.

- 11. DRIVEWAY NOTES:
- a. DRIVEWAYS SHALL BE PLACED TO AVOID CONFLICT WITH DRAINAGE STRUCTURES UNLESS APPROVED BY THE CITY ENGINEER.
- b. DRIVEWAYS SHOULD HAVE A MAXIMUM SLOPE OF 8% FOR THE FIRST 15' FROM THE BACK OF SIDEWALK AND SHALL NEVER EXCEED 10% IN THE FIRST 15' FROM THE STREET.
- 13. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATIONS APPROVED BY GOVERNING AGENCIES.
- 14. SEEDING AND MULCHING OF THE SITE WILL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER COMPLETION OF THE SITE GRADING.
- 15. PERMITS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND INCURRING THE COST OF ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATES, ETC.
- 16. CONTRACTOR TO PROVIDE RED LINE AS BUILT CONSTRUCTION DRAWINGS TO TOWER OWNER AT COMPLETION OF JOB.
- 17. THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVE GROUND STRUCTURES AND/OR EXISTING UTILITIES BELIEVED TO BE IN THE WORKING AREA. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITIES. WITHIN THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED AT THE COST OF THE CONTRACTOR.
- 18. ALL ELECTRICAL WORK SHALL BE DONE IN STRICT ACCORDANCE AND IN COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, ALL STATE AND LOCAL LAWS AND ORDINANCES, THE REGULATIONS OF THE STATE AND LOCAL AUTHORITIES HAVING JURISDICTION, AND ALL REQUIREMENTS OF THE CARRIER'S SPECIFICATIONS AND PRACTICES.
- 19. ALL ELECTRICAL EQUIPMENT, MATERIALS, AND DEVICES SHALL BE NEW, STANDARD FIRST GRADE THROUGHOUT AND CONFORM TO THE LATEST APPLICABLE STANDARDS ESTABLISHED BY IEEE, ANSI, ASTM, ETC. ELECTRICAL EQUIPMENT SHALL MEET STANDARDS OF UNDERWRITER'S LABORATORIES, INC., AND SHALL BE SO LABELED.
- ALL WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL PRESENT A NEAT AND MECHANICAL APPEARANCE UPON COMPLETION.
- 21. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, HARDWARE, LABOR AND SERVICES REQUIRED FOR THE INSTALLATION OF COMPLETE AND PROPERLY WORKING INSTALLATIONS AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.
- 22. CONTRACTOR SHALL VERIFY EXACT TYPE OF EQUIPMENT TO BE INSTALLED AND THE DIMENSIONS WHICH MAY EFFECT THE EXACT PLACEMENT OF ELECTRICAL WORK.
- 23. ALL RIGID GALVANIZED STEEL (RGS) CONDUIT COUPLINGS AND CONNECTORS SHALL BE STANDARD THREADED TYPE. FLEXIBLE METAL CONDUIT SHALL BE SEALTIGHT, CONSISTING OF FLEXIBLE GALVANIZED STEEL TUBING WITH A LIQUIDTIGHT JACKET OF PVC.
- 24. WHERE RIGID CONDUITS ENTER BOXES THEY SHALL BE SECURED IN PLACE BY APPROVED LOCKNUTS AND BUSHINGS AND SHALL BE PROVIDED WITH A BURNDY GROUNDING CLAMP OR EQUAL. ALL CONDUIT CONNECTIONS TO SHEET METAL BY USE OF CABINETS OR ENCLOSURES SUBJECT TO THE ELEMENTS SHALL TERMINATE WITH RAINTIGHT HUBS.
- 25. ALL PVC CONDUIT SHALL BE MINIMUM SCHEDULE 40.
- 26. ALL CONDUCTOR INSULATION SHALL BE MINIMUM 600 VOLT RATED. ALL CABLE SHALL BE NYLON JACKETED, TYPE THHN/THWN UNLESS NOTED OTHERWISE.



Item 1.

430 CHESTNUT STREET SUITE 101-B CHATTANOOGA, TN 37402

ENGINEER:



REV	DATE	RECORD OF ISSUE	BY CHK
Α	10/08/2021	ZONING	KC EB
В	05/03/2022	SITE SKETCH	KC EB
С	08/15/2022	ZONING	YH



SITE NAME:

SUGAR CREEK

SITE NUMBER:

NC-091

SITE ADDRESS:

DORMAN ROAD PINEVILLE, NC 28134

> GENERAL NOTES

DRAWN BY:

CHECKED BY:

EB

PROJECT MANAGER:

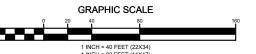
SHEET NUMBER:



KC











REV	DATE	RECORD OF ISSUE	BY
Α	10/08/2021	ZONING	KC EB
В	05/03/2022	SITE SKETCH	KC EB
С	08/15/2022	ZONING	YH EB



SITE NAME:

SUGAR CREEK

SITE NUMBER:

NC-091

SITE ADDRESS:

DORMAN ROAD PINEVILLE, NC 28134

OVERALL SITE LAYOUT

CHECKED BY:

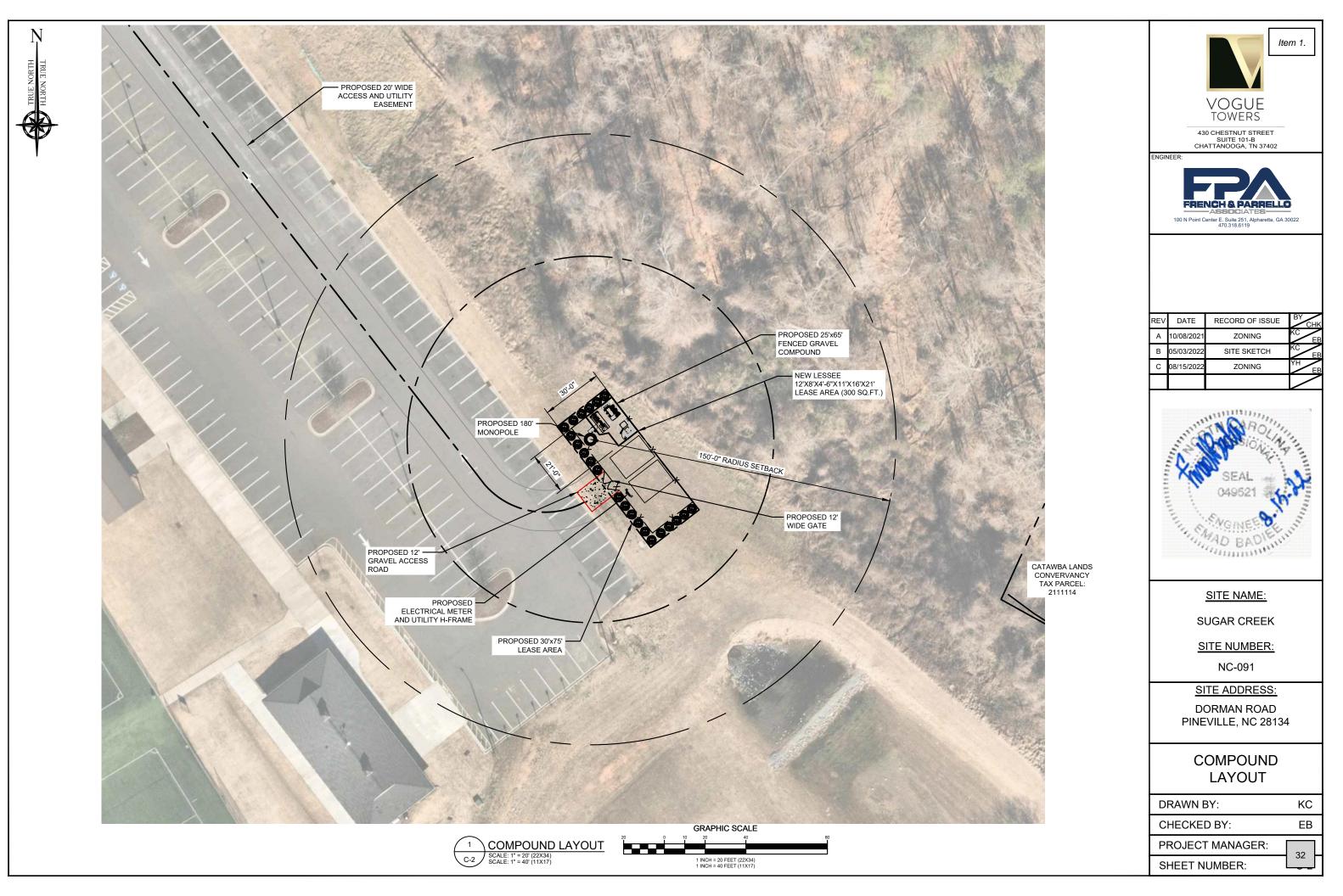
PROJECT MANAGER:

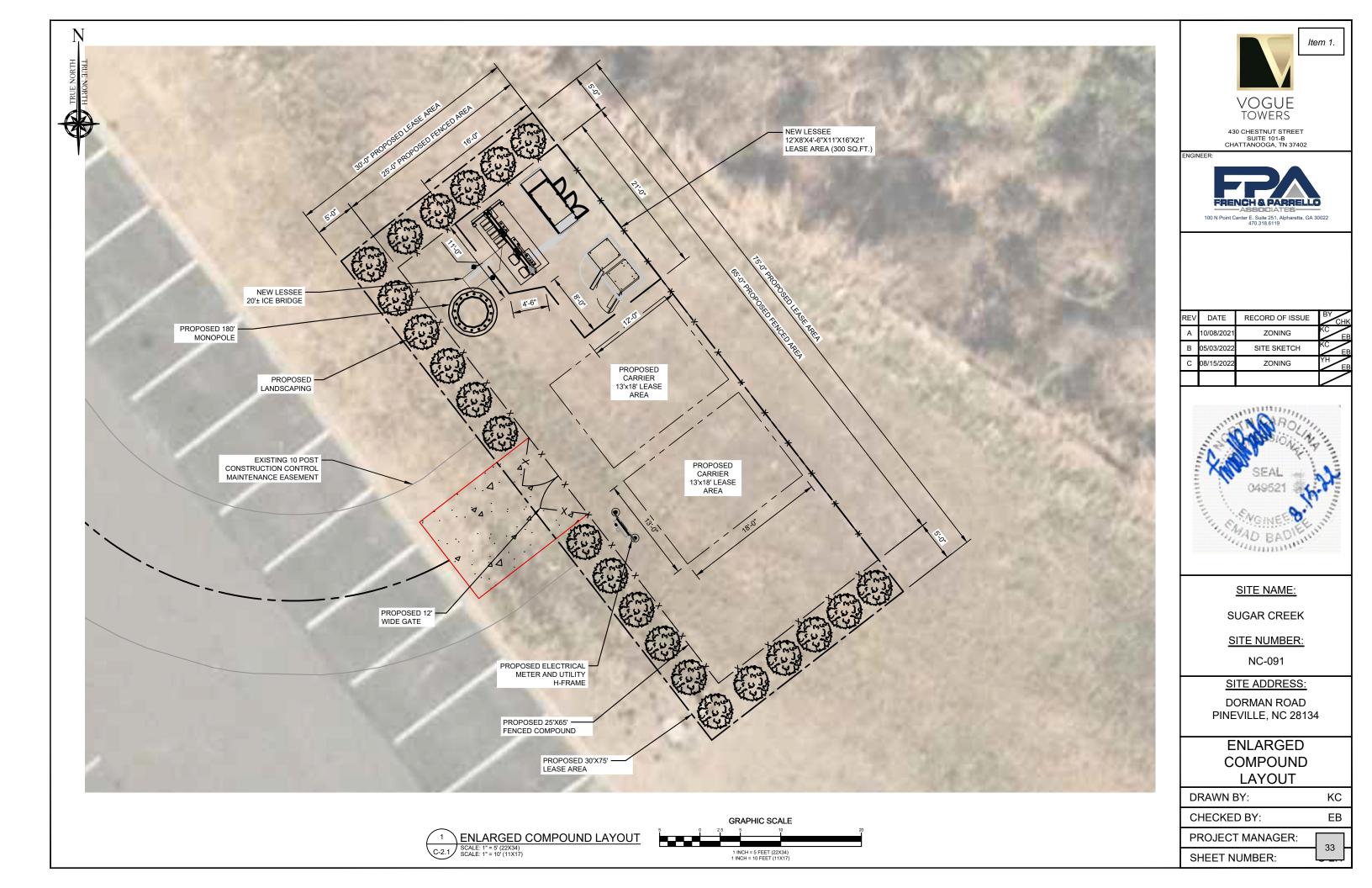
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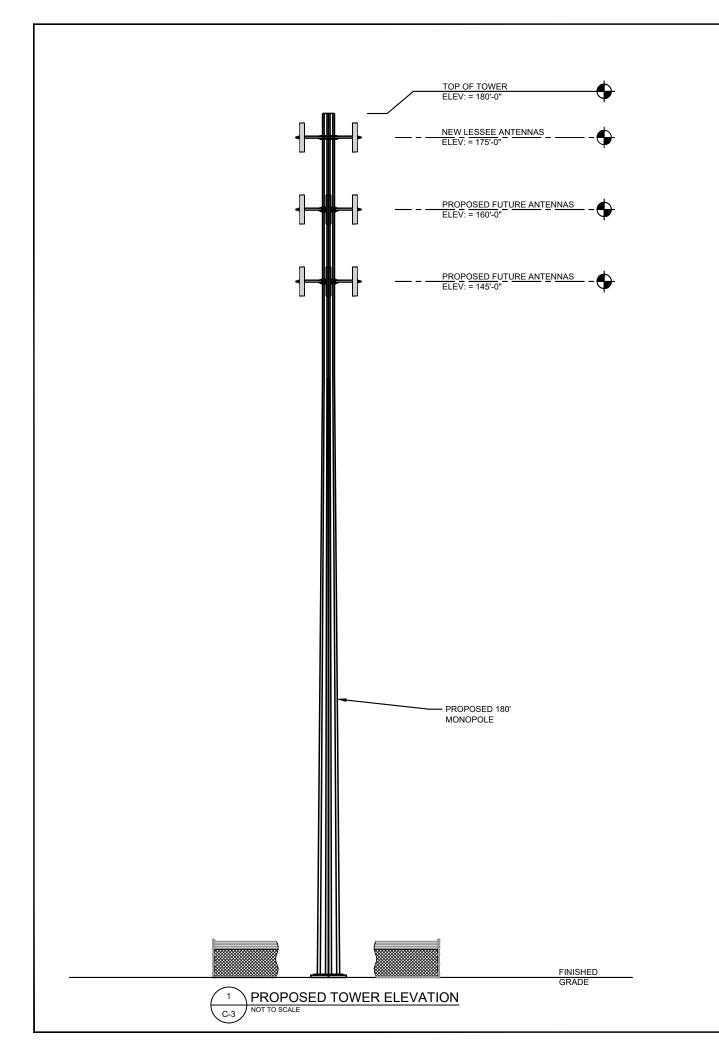
31

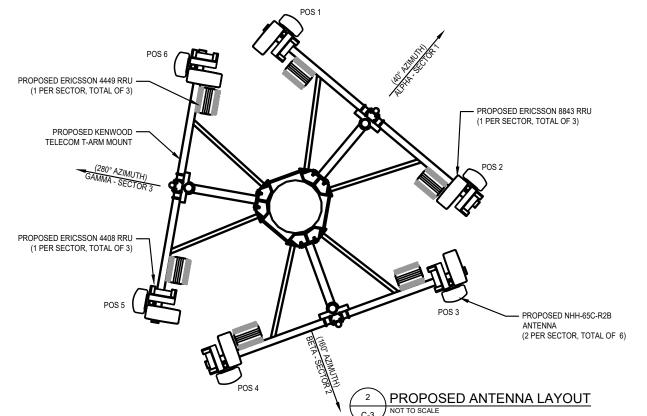
KC

ΕB









ANTE	NNAS - Propos	ed Configuration	on			
ANIE	Sector 1 Sector 2 Sector 3 Sector 4					
Desired Rad Center (#AGL)	185'	185'	185'	Jecior 4	Other*	
Antenna Type	Multiband /	Multiband /	Multiband /		_	
Antinia type	Sector	Sector	Sector			
Antenna Quantity	2	2	2			
TX, RX or Both	Both	Both	Both			
Antenna Manufacturer	Commicone	Commiscope	Commicone			
Antenna Model (Attach Spec Sheet)	NHH-65C-	NHH-65C-R2B	NHH-65C-			
	R2B		R2B			
Weight (lbs per antenna)	52 Jbs	52 Jbs	52 Jbs			
Antenna Dimensions (HXWXD) (in)	95.984 11.85	95.984 11.85	95.984 11.85			
ERP (watts)	x7.087 See	x7.087 See	x7.087 See		-	
ERF (Wd/s)	Comments	Comments	Comments			
Antenna Gain (dB)	16-18.2	16-18.2	16 - 18.2			
Orientation/Azimuth (degrees)	40	160	280		_	
Mechanical Tilt / Electrical Tilt	0/2	0/2	0/2			
RRU Quantity	3	3	3			
RRU Manufacturer & Model	Ericsson 4408	Ericsson 4408	Ericsson 4408			
(Attach Spec Sheet)						
RRU Dimensions (HxWxD) (in)	8.4×7.9×4.2	8.4 x 7.9 x 4.2	8.4 x 7.9 x 4.2			
RRU Weight	10.2 Jbs	الم 10.2 الم	المال 10.2			
RRU Quantity	3	3	3			
RRU Manufacturer & Model	Ericsson 4449	Ericsson 4449	Ericsson 4449			
(Altach Spec Sheet)						
RRU Dimensions (HxWxD) (in)	15 x 13.2 x 9.3	15 x 13.2 x 9.3	15 x 13.2 x 9.3			
RRU Weight	70 lbs.	70 lbs.	70 lbs.			
RRU Quantity	3	3	3.			
RRU Manufacturer & Model (Attach Spec Sheet)	Ericsson 8843	Ericsson 8843	Ericsson 8843			
RRU Dimensions (HxWxD) (in)	15 x 13.2 x	15 x 13.2 x	15 x 13.2 x			
***************************************	11.1	11.1	11.1			
RRU Weight	75 Jbs	75 Jbs	75 Jbs			
TMA Quantity	N/A	N/A	N/A			
TMA Manufacturer & Model	N/A	N/A	N/A			
TMA <u>Dimensions(HxWxD</u>)	N/A	N/A	N/A			
TMA RAD Center	N/A	N/A	N/A			
Mount Mfg and Model (Attach Spec Sheet)	Kenwood	Kenwood	Kenwood			
	Z2016KTA	Z2016KTA	Z2016KTA			
Tower Mount Mounting Height (on tower)	185'	1851	185'			
Transmit Frequency (MHz)	880.0-890.0 891.5-894.0 1975.0-1990.0 776.0-787.0 2145-2155 2120-2130	880.0-890.0 891.5-894.0 1975.0-1990.0 776.0-787.0 2145-2155 2120-2130	880.0-890.0 891.5-894.0 1975.0-1990.0 776.0-787.0 2145-2155 2120-2130			
Receive Frequency (MHz)	835.0-845.0 846.5-849.0 1895.0-1910.0 1745-1755, 1720-1730, 746.0-757.0;	835.0-845.0 846.5-849.0 1895.0-1910.0 1745-1755, 1720-1730, 746.0-757.0;	835.0-845.0 846.5-849.0 1895.0-1910.0 1745-1755, 1720-1730, 746.0-757.0;			
Number of Coay Cables (perant)	3550-3700	3550-3700	3550-3700			
Number of Coax Cables (per antenna)	2 Hybrid	0 N/A	0 N/A			
Diameter of Coax Cables (in)						





ENGINEER



REV	DATE	RECORD OF ISSUE	BY
Α	10/08/2021	ZONING	KC EB
В	05/03/2022	SITE SKETCH	KC EB
С	08/15/2022	ZONING	YH EB



SITE NAME:

SUGAR CREEK

SITE NUMBER:

NC-091

SITE ADDRESS:

DORMAN ROAD PINEVILLE, NC 28134

TOWER ELEVATION, ANTENNA LAYOUT, AND SCHEDULE

DRAWN BY:

:

CHECKED BY:

PROJECT MANAGER:

SHEET NUMBER:

34

KC EB



PROPOSED ANTENNA MOUNT DETAIL

NHH-65C-R2B



6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 65° HPBW, 2x RET. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- . Separate RS-485 RET input/output for low and high band
- One RET for low band and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO

	 	4405 4000	1000 1000	
Electrical Specifications				

Frequency Band, MHz	698-806	806-896	1695-1880	1850-1990	1920-2200	2300-236
Gain, dBi	16.0	16.1	17.3	17.7	18.3	18.2
Beamwidth, Horizontal, degrees	65	62	74	66	62	59
Beamwidth, Vertical, degrees	9.0	7.9	5.6	5.2	4.9	4.5
Beam Tilt, degrees	0-11	0-11	0-7	0-7	0-7	0-7
USLS (First Lobe), dB	21	18	19	20	22	18
Front-to-Back Ratio at 180°, dB	35	31	33	29	29	30
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	30	30	30	30
VSWR Return Loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	400	400	350	350	350	300
Polarization	±45°	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm					

Frequency Band, MHz	698-806	806-896	1695-1880	1850-1990	1920-2200	2300-2360
Gain by all Beam Tilts, average, dBi	15.8	15.9	16.9	17.5	18.0	17.9
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.4	±0.4	±0.3	±0.6	±0.4
	0 ° 15.9	0 ° 15.8	0 ° 16.9	0 ° 17.4	0 ° 17.9	0 ° 17.8
Gain by Beam Tilt, average, dBi	5 ° 15.9	5 ° 16.0	4 ° 17.0	4 ° 17.5	4 ° 18.0	4 ° 17.9
	11 ° 15.5	11 ° 15.7	7 ° 16.9	7 ° 17.4	7 ° 18.0	7° 17.9
Beamwidth, Horizontal Tolerance, degrees	±1.2	±1.6	±5.3	±3.4	±6	±3.1
Beamwidth, Vertical Tolerance, degrees	±0.6	±0.4	±0.3	±0.2	±0.2	±0.2
USLS, beampeak to 20° above beampeak, dB	15	14	17	16	17	15
Front-to-Back Total Power at 180° ± 30°, dB	26	24	28	25	25	24
CPR at Boresight, dB	18	26	20	25	20	17
CPR at Sector, dB	15	9	11	10	8	2

Array Layout

page 1 of 4 December 5, 2019

COMMSCSPE®

PROPOSED ANTENNA DETAIL

RADIO 4408 Same building practice as Radio 2203/2208



Now confirmed max measurements/ will not exceed



ENM dependency (full support 6 carriers in ENM 201Q1) 2x 2.5/5/9.8/10.1Gbps CPRI

Up to 6 LTE carriers, IBW up to 150 MHz

Tx Power 4x5W

4TX/4RX

ze and weight.				
dio 4408 Single Radio	iHeight	Width	Depth	Weight
integrated antenna	-8.4 (in	7.9 lin	(4.2 ln)	10.2 lbs
	(213.5 mm)	((200 mm)	(105 mm)	(4.6 Kg)
ntegrated antenna	-8.4(In)	7,9 In	5.0 ln	11.1 lbs
	(213.5 mm)	(200 mm)	(125 mm)	(5.0 Kg)

AC or "48 VDC Support Units," (single new version, compared to 2208, dual SUP support release TBD)

Integrated (Antenna 6524) or external antenna

RF Connector: NEX10

2 external alarm) IP 65

-40 to +55 C

Operating Bands: B48/ CBRS





CONFIGURATIONS AND DIMENSIONS FOR 8843 "REV 2"



B2 4x40W + B66A 4x40W

⇒ B2 2x60W + B66A 2x80W

= B2 4x40W + B66A 2x80W

B2 4x20W + B66A 4x60W

Not to exceed dimensions for 8843

Not to exceed Dimensions for Rev 2" version; 36 liters (H; 380mm, W; 335 mm, D; 282 mm)

Not to exceed Weight for "Rev 2" version: 75 lb

Radio 8843 "Rev 2"	Height	Width	Depth (Estimate)	Weight (Estimate)
wo protruding items	15 In (380 mm)	13.2 Jn (335 mm)	9.3 in, 11.1 in (235 mm), 282 mm	70.lbs (31.7 kg)
w protruding items	18.In	13:2 In	9.4 in, 11.3 in	75 lbs (34.02 kg)
	(455 mm)	(335 mm)	(240 mm), 287 mm	

RADIO 4449 - B13 + B5 (DUAL-BAND) 4TX 4RX PER BAND

4 antenna ports, 4TX/4RX for 2 bands with common RF ports

> Up to 320W RF Power shared between 2 bands

> 4x40W on each band or

2x60W each band on two high-power RF ports Carrier Capacity:

> Up to 24 carrier and up to 10+25 MHZ OBW for LTE

2x 10Gbps CPRI Size and Weight

- -48 VDC, 2x20A fuse (2 power AISG TMA & RET support (2 Bias-T, 1 ALD port)
- Type 4.3-10 RF connectors
- IP 65 -40 to +55℃

Q4 '17









EV	DATE	RECORD OF ISSUE	BY
Α	10/08/2021	ZONING	KC EB
В	05/03/2022	SITE SKETCH	KC B
С	08/15/2022	ZONING	YH EB



SITE NAME:

SUGAR CREEK

SITE NUMBER:

NC-091

SITE ADDRESS:

DORMAN ROAD PINEVILLE, NC 28134

ANTENNA AND RRU **DETAILS**

DRAWN BY:

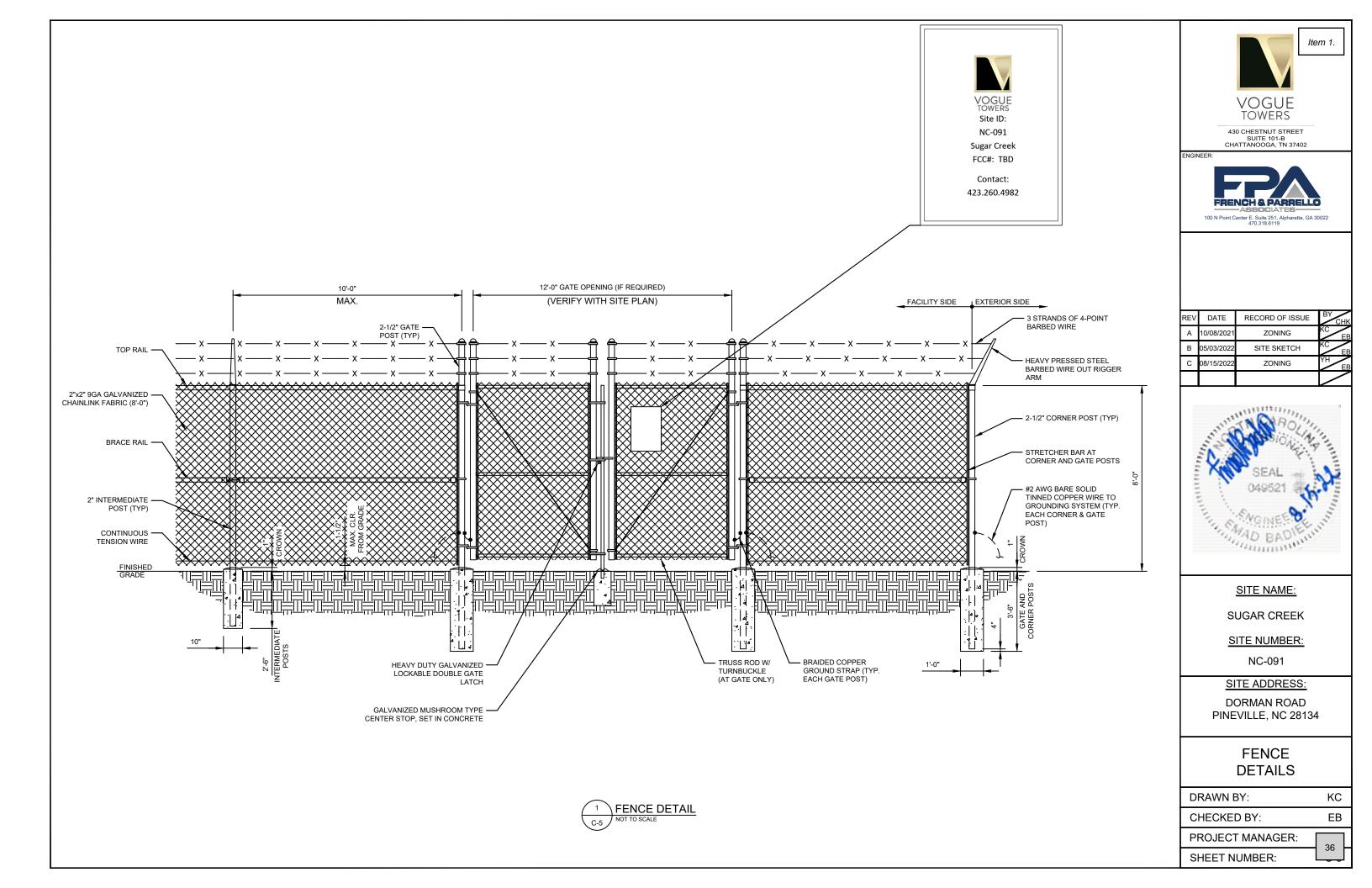
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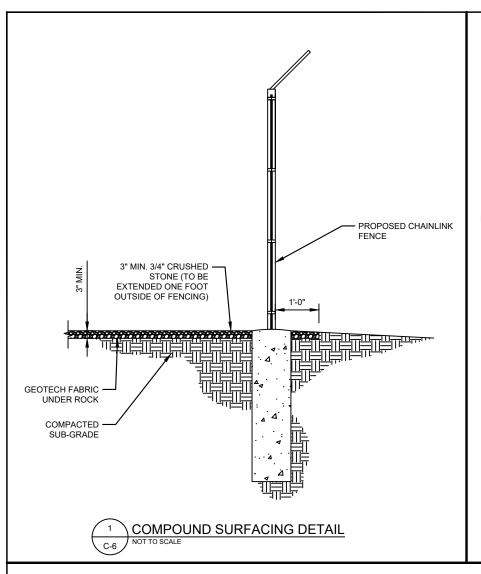
PROJECT MANAGER:

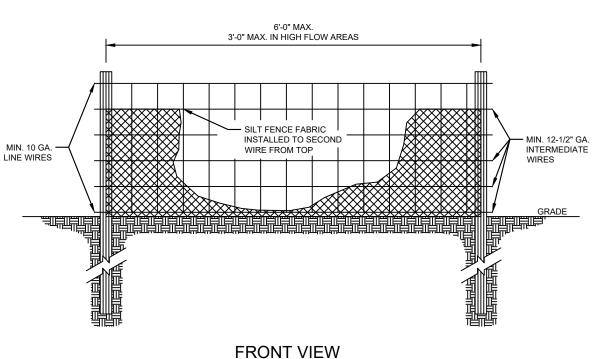
SHEET NUMBER:

35

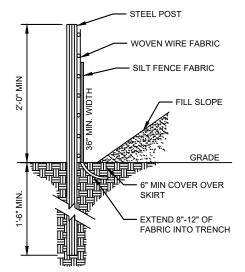
KC EΒ

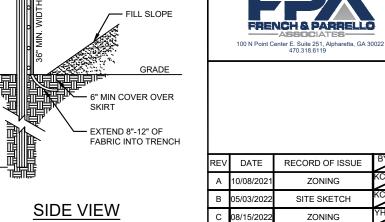




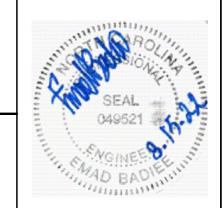


SILT FENCE DETAIL NOT TO SCALE





ENGINEER



Item 1.

VOGUE TOWERS

430 CHESTNUT STREET SUITE 101-B CHATTANOOGA, TN 37402

SITE NAME:

SUGAR CREEK

SITE NUMBER:

NC-091

SITE ADDRESS:

DORMAN ROAD PINEVILLE, NC 28134

> SITE **DETAILS**

DRAWN BY:

CHECKED BY:

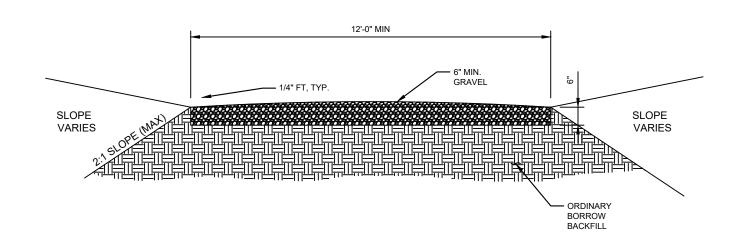
EΒ

KC

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PROJECT MANAGER:

SHEET NUMBER:



1. ALL SEDIMENT CONTROL STRUCTURES SHALL BE INSTALLED PRIOR TO ANY GRADING AND ARE TO BE MAINTAINED IN PLACE THROUGHOUT THE COURSE OF CONSTRUCTION. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROVIDED ON ALL GRADED AND OR DISTURBED AREAS UNTIL SUCH AREAS HAVE BEEN STABILIZED WITH VEGETATIVE COVER.

2. CONTRACTOR SHALL OBTAIN APPLICABLE EROSION AND SEDIMENT CONTROL PERMIT(S) AND COMPLY WITH ALL LOCAL AND STATE LAWS. SEDIMENT SHALL NOT BE ALLOWED TO WASH INTO STORM DRAINS OR ONTO ADJACENT PROPERTIES. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR CLEANUP OF ANY AND ALL DAMAGES RESULTING FROM SILTATION FROM THE CONSTRUCTION SITE.

3. SEDIMENT AND EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE CONSIDERED MINIMUM. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING CONTROL AS NECESSARY TO PREVENT EROSION RUNOFF. ADDITIONAL EROSION CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE

4. IF FINES OR PENALTIES ARE LEVIED AGAINST THE PROPERTY OR PROPERTY OWNER BECAUSE OF LACK OF EROSION AND/OR SEDIMENTATION CONTROL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF SUCH FINES OR PENALTIES.

EROSION CONTROL NOTES

